To: Hall, John[Hall.John@epa.gov] From: Garland, Jay Sent: Fri 1/19/2018 1:13:45 AM Subject: Re: Temp RH Data 010818 Tx John. Sent from my iPhone On Jan 18, 2018, at 5:21 PM, Hall, John < Hall. John@epa.gov > wrote: Jay, The RH as measured by a sling psychometer was higher than the Dickinson sensor (see below) is reporting but not a huge amount **Ex. 4 - CBI** Maybe we need a weather scientist to give us a tutorial on humidity. I am not sure I understand Absolute versus Relative humidity. For example the "humidity" reported today for outside cincinnati is approx. 50% where the air is approx. 32 degrees F. John Ex. 4 - CBI From: Meiners, Greg Sent: Thursday, January 18, 2018 5:00 PM To: Hall, John < Hall.John@epa.gov > Cc: Witt, Sue { Ex. 4 - CBI Subject: RE: Temp RH Data 010818

Hi John,

I checked the Dickson logger with a sling psychrometer and here are the results. The %RH is a little low as you suspected. I can repeat this next week when the humidity goes up with moderating temperatures...if we are working?

Ex. 4 - CBI

Ex. 4 - CBI

APTIM

Ex. 4 - CBI

From: Hall, John [Hall.John@epa.gov]

Sent: Wednesday, January 17, 2018 10:57 AM

To: Meiners, Greg

Subject: RE: Temp RH Data 010818

That will be cool. I would love to know how to do it the old fashioned way.

From: Meiners, Greg Ex. 4 - CBI

Sent: Wednesday, January 17, 2018 10:42 AM

To: Hall, John < Hall.John@epa.gov > Subject: Re: Temp RH Data 010818

John,

We have a sling psychrometer somewhere. I'll try to find it tomorrow afternoon when I'm at work and check the Dickson logger reading.

Greg

Sent from my iPhone

On Jan 17, 2018, at 10:26 AM, Hall, John < Hall. John@epa.gov > wrote:

Greg,

Do we have anyway to verify these R.H. % numbers. Do we have a wet bulb and dry bulb thermometer? Less than Ex. 4 - CBI sounds right for outside right now but I don't understand how the 60 plus degree air in the high bay can be below 10% but maybe I just don't understand how RH works. I guess if the air is warmer and can hold more moisture but there isn't anymore moisture added, it is lower RH inside than outside?

John

From: Meiners, Greg Ex. 4 - CBI

Sent: Monday, January 08, 2018 3:33 PM

To: Oren Shtivy <orens@water-gen.com>; Avi Peretz <avi@water-gen.com>
Cc: Hall, John < Hall.John@epa.gov>; Jahne, Michael < Jahne.Michael@epa.gov>;
Kling, Timothy Ex. 4 - CBI >; Brannon, John

Ex. 4 - CBI Witt, Sue < Ex. 4 - CBI

Subject: FW: Temp RH Data 010818

Hi Oren & Avi:

Attached are the temperature and humidity data from the Dickson logger. I left one file as a DicksonWare .log file that the DicksonWare software should recognize. Please let me know if you can open this file with the DicksonWare and have it reproduce the graphs.

The second file was a text file that I converted to an Excel file. Currently, the temperature and

humidity in Cincinnati have been very low with low relative humidity. Today, the temperature has moderated a bit all the way up to Ex. 4 - CBI As a result the RH% is increasing slightly. Please let me know if you have any questions.

APTIM

Greg Meiners

Ex. 4 - CBI

From: Meiners, Greg

Sent: Monday, January 08, 2018 3:15 PM

To: Meiners, Greg **Cc:** Witt, Sue

Subject: Temp RH Data 010818

APTIM

Greg Meiners

Ex. 4 - CBI

Ex. 4 - CBI